Emerging Information Assets and Changing Landscape of K-12 Education Reform

American Association of Colleges for Teacher Education (AACTE)
Annual Meeting in San Diego, CA
February 25, 2011
By Pascal (Pat) D. Forgione, Jr., Ph.D.
Since its inception in 1993, high-stakes education reform has encountered significant measurement challenges:

- Standards vary by states and often are too many and too low
- NCLB tests tend to be poor measures for students who are well above or below grade level
- Accountability that is based on status (% proficient) rather than growth often rewards high SES schools and punishes low SES schools making very strong growth
- Tests don’t provide useful, timely diagnostic information to teachers
- Accommodations for ELLs and students with disabilities are too often inadequate
The Uniqueness of this Moment: Inflection Point

♦ Thomas Friedman in “The World is Flat” points out the importance of “inflection points” in history.

♦ The **Common Core State Standards** (CCSS) can become an “inflection point” for American public education - establishing a common foundation for building excellence and equity for all students.

*Interactive Digital Library*

*State silos of cost, effort, expertise*

*Shared platform for collaboration, cost and effort efficiencies, sharing of best practices*
New Policy Goals for Our Education Systems and Assessments

♦ Measure individual growth as well as proficiency;

♦ Measure the extent to which each student is on track, at each grade level tested, toward college or career readiness by the time of high school completion; and

♦ Provide information that is useful in informing:
  - Teaching, learning, and program improvement;
  - Determinations of school effectiveness;
  - Determinations of principal and teacher effectiveness for use in evaluations and the provision of support to teachers and principals; and
  - Determinations of individual student college and career readiness, such as determinations made for high school exit decisions, college course placement to credit-bearing classes, or college entrance.
Major R&D Reform Efforts Underway

- Human Capital Innovations and Performance Pay Models
- Comprehensive State Assessment Consortia: New Assessments for the Common Core State Standards
Human Capital Innovations: Measures of Effective Teaching (MET)

TEACHER EVALUATION CRITERIA

Today
- High-level principal input
- Seniority
- Degrees earned

Basic: Principal observation and teacher “qualifications” determine rating

Tomorrow
- Teacher attributes/values
- Principal assessment of work skills (i.e., teamwork/leadership)
- Test of pedagogical content knowledge
- Rigorous peer/expert observation
- Parent/student feedback

Robust: multiple inputs anchored in student achievement determine effectiveness
Human Capital Innovations: Empowering Effective Teachers (EET)

A PATHWAY TO EFFECTIVE TEACHING
As identified by participating sites

Effective Teaching Pathway

- Multi-dimensional measures
- Robust teacher evaluation
- More meaningful tenure
- Differentiated pay based on effectiveness
- Strategic placement of teachers
- Targeted PD and other teacher supports
- More effective teachers
- Stronger student outcomes

Center for K–12 Assessment & Performance Management at ETS
Performance Pay Models: Austin Initiative

♦ 86,103 students in Austin ISD

♦ 124 schools (including special campuses)

♦ 6,067 teachers

♦ 19 schools participating in AISD REACH in SY 2010-11: fourth year of a four-year pilot and the first year of new federal grant

♦ A five-year Teacher Incentive Fund (TIF) grant for 24 additional high-need schools (a total of 43 REACH schools by 2014-15)
# Performance Pay Models: AISD REACH Program

## AISD REACH Program Overview - TEACHERS

<table>
<thead>
<tr>
<th>Strand</th>
<th>Program</th>
<th>Description</th>
<th>Compensation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Student Growth</strong></td>
<td>Individual Student Learning Objective</td>
<td>Teachers work with campus administration to write one objective that focuses on an area of need, give a pre-test to set a growth target, and systematically progress monitor student growth. Teachers will post-test at the end of the year/semester to determine if target is met. Teachers must complete the SLO process to be eligible for any additional stipends.</td>
<td>$1,500</td>
</tr>
<tr>
<td></td>
<td>Team Student Learning Objective</td>
<td>Team Choice - Groups of teachers will write a team SLO based on all the students in a course using a common assessment. Core teachers must participate in a team SLO. Non-core teachers may choose to join a core team or may form their own. Teams work with campus administration to create an objective focused on an area of need, give a common pre-assessment to set a growth target, and systematically progress monitor student growth. Teams will post-test at the end of the year to determine if target is met. Individual Choice - same as Individual SLO - this applies only to non-core teachers or core teachers without a team or by special circumstance.</td>
<td>$2,000</td>
</tr>
<tr>
<td></td>
<td>Campus-wide Objectives</td>
<td>Campus Basket of Measures approved by Associate Superintendent - 4 measures - Campus must meet 3 out of 4. TBDM Value-added 2. Campus Choice of TAKS/STAAR measures 3. Campus Choice of College Readiness measures 4. Campus Choice (additional stipend for 4 out of 4).</td>
<td>$2,000 - $3,000</td>
</tr>
<tr>
<td><strong>Professional Growth</strong></td>
<td>Professional Development Unit (optional)</td>
<td>Groups of teachers may engage in study and reflection for an area of need and implement strategies to improve practice and student achievement. Teachers will present findings in end of year report. Teachers can choose to create an original PDU, select one from a menu of options, or participate in Take One!</td>
<td>$1,500</td>
</tr>
<tr>
<td></td>
<td>Mentoring</td>
<td>Novice teachers receive support in instruction, lesson planning, classroom management, and other challenges teachers face each day.</td>
<td>$0</td>
</tr>
<tr>
<td><strong>Leadership Pathways</strong></td>
<td>Mentors</td>
<td>Master teachers who have been freed from their own teaching duties to work directly with new teachers. Mentors are on a 197 day contract. Mentors receive half of campus-wide award if the school achieves.</td>
<td>$3,000 - $2,000</td>
</tr>
<tr>
<td></td>
<td>SLO Facilitators</td>
<td>Campus staff who provide support for the SLO process. They also receive 4 substitute days.</td>
<td>$1,500</td>
</tr>
<tr>
<td></td>
<td>PDU Facilitators</td>
<td>Teachers who oversee the PDU process</td>
<td>$1,000</td>
</tr>
<tr>
<td><strong>Evaluation</strong></td>
<td>TBD</td>
<td>To be developed for school year 2011-2012</td>
<td>$0</td>
</tr>
<tr>
<td><strong>Hard to Staff Recruitment and Retention</strong></td>
<td>Years at School</td>
<td>Teachers who have been at the campus 1-3 years</td>
<td>$1,000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Teachers who have been at the campus 4 or more years</td>
<td>$3,000</td>
</tr>
<tr>
<td></td>
<td>Hard to Staff</td>
<td>Subjects - TBD for school year 2011-2012</td>
<td>$1,000</td>
</tr>
</tbody>
</table>
Performance Pay Models: AISD REACH Program Results

- In 2008-2009, teachers who met two science Student Learning Objectives (SLOs) had a higher percentage of students achieving above what was predicted than did teachers who met no science SLOs in 2008-2009.

- In 2007-2008, teachers who met math Student Learning Objectives (SLOs) had students who performed significantly higher on the math Texas Assessment of Knowledge and Skills (TAKS) than did those who established but did not meet their math SLOs. Similar results were also found for reading.

- Retention for novice teachers increased by 11% from 2007-2008 to 2008-2009 at highest-needs pilot schools compared with a 3% increase for novice teacher retention rate at highest-needs comparison schools.

- Teachers across the pilot indicated that REACH influenced their decisions to remain on campus for 2009-2010 rather than to retire or transfer.

- 74% of teachers agree that the program components are a positive change to teacher pay practices and 67% reported that the program is fair to teachers.

- In 2009-2010, 78% of teachers who responded to open-ended comments regarding Student Learning Objectives (SLOs) felt that the SLO process has positively changed their instructional practices.
Comprehensive State Assessment Consortia: The PARCC System

English Language Arts and Mathematics, Grades 3 - 11

PARTNERSHIP RESOURCE CENTER: Digital library of released items, formative assessments, model curriculum frameworks, curriculum resources, student and educator tutorials and practice tests, scoring training modules, and professional development materials

Through-course ASSESSMENT 1
- ELA
- Math

Through-course ASSESSMENT 2
- ELA
- Math

Through-course ASSESSMENT 3
- ELA
- Math

END OF YEAR COMPREHENSIVE ASSESSMENT

Summative assessment for accountability
- Required, but not used for accountability

Through-course ASSESSMENT 4
- Speaking
- Listening
Digital Clearinghouse of formative tools, processes and exemplars; released items and tasks; model curriculum units; educator training; professional development tools and resources; scorer training modules; and teacher collaboration tools.

Scope, sequence, number, and timing of interim assessments locally determined.

Performance Tasks
- Reading
- Writing
- Math

End of Year Adaptive Assessment

Re-take option

Optional Interim assessment system — no stakes
Summative assessment for accountability

* Time windows may be adjusted based on results from the research agenda and final implementation decisions.
The next generation of assessment systems under development will offer significant enhancements to large-scale assessment programs:

- New summative assessment delivery options: adaptive testing
- New summative assessment formats: through-course summative assessments
- Making the most of the “data jungle” to personalize instruction and accelerate learning
New Summative Assessment Delivery Options: Adaptive Testing

- Adaptive testing provides more timely and useful information.
- Composed of approximately 40 to 65 questions per content area.
- Uses adaptive delivery to provide maximally accurate scores across the full spectrum of student achievement and to increase student engagement.
- Includes selected-response, technology-enhanced constructed-response, and extended constructed-response items.
- Scores can be provided immediately. If items requiring human scoring are used, a partial score can be given, and then updated.
- A re-take option can be provided
Why are adaptive assessments more useful?

- Adaptive test delivery engines select items for students based on their responses to previous questions in order to more precisely “zero in” on the student’s true performance level.

- Yields more precise scores for students who are not performing right at grade level in a subject or a particular skill area within a subject (i.e. algebraic reasoning as a subset of mathematics).

- Surveys show that adaptive tests are also more engaging to students, which also increases score accuracy.

- Multiple item types that can be immediately scored can be used, and items and tasks requiring human scoring can be included (perhaps at the end) and added to the composite score at a later date.

- Oregon, Delaware and Hawaii are currently using adaptive summative assessments with USED approval. Oregon’s, in use since 2001, yields immediate scores and allows students up to 3 times to pass*.

* Must be approved by local educators
New Summative Assessment Formats: Through-Course Summative Assessments

♦ **Through-course summative assessments** enhance the timeliness and usefulness of information during the school year

- The USED definition of through-course assessments:

  “An assessment system component or set of assessment system components that is administered periodically during the academic year.”
One Model of Through-Course Summative Assessment Under Development

THREE MID-YEAR FOCUSED ASSESSMENTS

• Each assessment includes to three tasks that assess a few “keystone” standards/topics
• Given at three points during the school year, near the end of quarters
• Results within 2 weeks to inform instruction and intervention
  • Scores from through-course assessments and end-of-year test are combined for the annual accountability score.

END OF YEAR COMPREHENSIVE ASSESSMENT

• Taken on computer, with mixed item types
• May be adaptive for greater score precision
• Scored by computer for fast results
One Model of Through-Course Summative Assessment Under Development, Cont’d

Focused ASSESSMENT 1
- ELA
- Math

Focused ASSESSMENT 2
- ELA
- Math

Focused ASSESSMENT 3
- ELA
- Math

END OF YEAR COMPREHENSIVE ASSESSMENT

25% • 50% • 75% • 90%
Making the Most of the “Data Jungle”

♦ Our current testing paradigm is one of a “data desert” involving few, sparse assessment events across the school year

♦ New paradigm: a data jungle

- Aim to capture as much of the on-going stream of information about learning as possible and use all of it, combined with student profile, to then locate open-source instructional resources that have proven to be most effective for similar students

INSTRUCTIONAL ACTIVITIES

DATA

Gather...analyze...locate best resources...gather...analyze...locate best resources...
The new policy goals, brought about in part by global competition, will require major advances in the accuracy, timeliness and usefulness of K-12 assessments.

Technologies will help us meet these challenges through new delivery options, formats, item types, scoring engines, and data analytics.

We’re likely transitioning into an era of “mass personalization” in learning and assessment, and will have to figure out how to adapt.

These comprehensive assessment systems will be very expensive to build and will require major R&D advances.
Contact:

Pascal (Pat) D. Forgione, Jr., Ph.D.
Distinguished Presidential Scholar and Executive Director
Center for K-12 Assessment and Performance Management at ETS
823 Congress Avenue, Suite 816
Austin, TX 78701
E-Mail: pdforgione@k12center.org
www.k12center.org